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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,279	01/04/2002	Rajendra S. Yavatkar	10559-568001 / P12782	8329
20985	7590	11/01/2005	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			HALIYUR, VENKATESH N	
			ART UNIT	PAPER NUMBER
			2664	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/039,279	YAVATKAR ET AL.	
	Examiner	Art Unit	
	Venkatesh Haliyur	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>none</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 53 have been examined.

Drawings

2. The drawings are objected to because of the following information is missing or not clearly visible.

- a) Item number 20 in Fig. 2 is not shown.
- b) Item number 24a is not legible or clearly identifiable.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

In "Description of Drawings", Fig. 4 description is not meaningful.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1,2,6,10,12-17,20,23,25-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Nair et al [US Pub: 2002/0103921].

Regarding claims 1,10,14-16,23,25-27,31,37-41,46-49,53 Nair et al "Method and system for routing broadband internet traffic" disclosed in their invention a distributed service router (DSR) [item 170 of Fig. 1a] implementing a routing control protocol to route packets between computer networks comprising a control-plane with a processor to implement a central control portion of the control protocol and forwarding-planes [item 120 of Fig 1a] each having a forwarding-plane processor to implement a load sharing (offload) [item 260 of Fig 2, para 0036, 0037,0085] control portion of the control protocol and ports that connect the router to the computer networks and a back-plane[item 220 of Fig 2, para 0037] to connect the control plane to a plurality of forwarding-planes and

to enable processing of the packet based on an implementation of the control protocol by the control-plane and the forwarding-plane [Figs. 1-3, para 0014-0079] with a computer readable storage medium for storing routing functions software (instructions) [items, 225,230,240,245,255 of Fig 2, item 120a, 170a and 160 of Fig. 4, para 0042,0093-0109].

Regarding claims 2,17,28,32,34,42,50, Nair et al disclosed the offload control portion of the control protocol having instructions to generate an outgoing control message [items 270, 255 of Fig 2, para 0036, 0037,0105-0108].

Regarding claims 6,20,29,33,35,43,51, Nair et al disclosed the offload control portion of the control protocol having instructions to respond to an incoming request control to the control protocol [item 265 of Fig 2, para 0036,0037].

Regarding claims 12,44, Nair et al disclosed a plurality of ports include a plurality of virtual interfaces on a physical interface [para 0080,0081].

Regarding claims 13,30,36,45,52, Nair et al disclosed forwarding-plane processor includes a processing engine to implement a plurality of packet processing functions [item 310 of Fig 3] for routing the packet and a general purpose processor [item 408 of Fig 4] to implement the offload control portion of the control protocol [Figs 2-4, para 0035-0040,0085-0088,0091,0092].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5,7-9,11,18,19,21,22,24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nair et al [US Pub: 2002/0103921] in view of Alfieri et al [US Pub: 2002/0099849].

Regarding claims 3,7,18,21, Nair et al disclosed that the control plane handles the incoming and outgoing control message flow (requests and responses) in their system [Para 0037-0040,0046-0056], but fails to disclose control protocol is open shortest path first (OSPF) protocol. However, Alfieri et al in their invention "Dense virtual router packet switching" disclosed a method and system for distributed VPRN that handles different routing protocols including OSPF and message flows [Abstract, Fig. 5, Para 0006-0009,0019-0021].

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the teachings of Alfieri et al to include OSPF protocol in the system of Nair et al to establish control flow using open shortest path first protocol

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for generating outgoing HELLO control message and to receive incoming link status (LSA) request message.

Regarding claims 4,8,19,22, Nair et al disclosed that the control protocol is used for setting up of paths and handles incoming and outgoing (requests and responses) control messages in their system [Para 0037-0040], but fails to disclose resource reservation protocol and the generation of the outgoing control message (RSVP). However, Alfieri et al disclosed different routing protocols including for setting up VPRN paths RSVP [Abstract, Fig. 2, Para 0023-0027].

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the teachings of Alfieri et al to include RSVP in the system of Nair et al to establish paths using RSVP for generating outgoing PATH control message and to receive incoming RESV request message.

Regarding claims 5,9, Nair et al disclosed inter-domain control protocol (BGP) [Para 0092] but fails to disclose intra-domain protocol, However, Alfieri et al disclosed both inter-domain protocol (BGP) and intra-domain protocol (RIP) para 0020,0021].

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the teachings of Alfieri et al to include intra domain protocol in the system of Nair et al to generate outgoing HELLO control message and to receive incoming HELLO request message.

Regarding claims 11,24, Nair et al disclosed processing of TCP/IP, UDP and MPLS protocols in their system [Para 0046-0056], but fails to disclose OPEN SHORTEST PATH FIRST (OSPF) and RESOURCE RESERVATION (RSVP) protocols.

However, Alfieri et al disclosed OSPF and RSVP protocols in their system [Abstract, Fig. 2 & 5, Para 0020-0027].

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the teachings of Alfieri et al to include OSPF and RSVP protocols in the system of Nair et al to generate outgoing control messages and receive incoming control messages.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art in reference here are Nair et al and Alfieri et al.

6. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached @ (571)-272-3134. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).


Ajit Patel
Primary Examiner
